



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/709,468 05/07/2004 Bill Yang 13050-US-PA 3467

31561 7590 04/03/2007
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, 100
TAIWAN

EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT	PAPER NUMBER
----------	--------------

2837

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS 04/03/2007 PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/709,468

Applicant(s)

YANG, BILL

Examiner

Jeremy Luks

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawker (5,790,679) in view of Dyer (6,688,421). Hawker teaches a speaker module (Figure 3, #26) (Col. 3, Lines 31-34), suitable for disposing a microspeaker (20) therein, comprising a speaker module frame (26) having a main portion having an accommodating hole (34), said accommodating hole (34) accommodating a microspeaker (Figures 1 and 3, #20); and an extending portion (28), extending from a side of said main portion to form a fixed resonance space (30) for said microspeaker (20), wherein the microspeaker (20) is disposed about a side wall (end portion of #28) of the extending portion (28) defining the accommodating hole (34); wherein the area of resonance space (30) is larger than the area of said microspeaker (20). Hawker fails to teach a plurality of positioning slices extending from the sidewall of said accommodating hole to a center of said accommodating hole for positioning a speaker. Dyer teaches a speaker module frame (Figure 3, #101) including a plurality of positioning slices (350) extending from sidewall when used in combination of said accommodating hole (104) to a center of said accommodating hole (104) for positioning a speaker (Col. 4, Lines 21-30). It would have been obvious to one of ordinary skill in the art at the time of the

Art Unit: 2837

invention to combine the apparatus of Hawker, with the apparatus of Dyer to more securely hold the speaker within the module, while allowing for easier insertion and removal if a replacement speaker is needed.

2. Claims 6-8 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawker (5,790,679) in view of Dyer (6,688,421) and Hansson (6,493,456).

Hawker teaches a speaker module (Figure 3, #26) (Col. 3, Lines 31-34), suitable for disposing a microspeaker (20) therein, comprising a speaker module frame (26) having a main portion having an accommodating hole (34), said accommodating hole (34) accommodating a microspeaker (Figures 1 and 3, #20); and an extending portion (28), extending from a side of said main portion to form a fixed resonance space (30) for said microspeaker (20), wherein the microspeaker (20) is disposed about a side wall (end portion of #28) of the extending portion (28) defining the accommodating hole (34); a front cover (36), disposed at a first side of said speaker module frame, a front sound enclosure (labeled front enclosure) being formed between said front cover (36) and said speaker module frame (28), defining the resonance space (30), said front cover (36) having a plurality of tone holes (40, 42); and a rear cover (38), disposed at a second side of said module frame (28), said second side being opposite to said first side, a rear sound enclosure (labeled back enclosure) being formed between said rear cover (38) and said speaker module frame (28); wherein the area (30) of said speaker module frame facing said front sound enclosure is larger than the area of said microspeaker (20). Hawker fails to teach wherein said speaker module frame includes a plurality of positioning slices extending from a sidewall of said accommodating hole to a center of said accommodating hole for positioning said microspeaker; and wherein the rear sound

Art Unit: 2837

enclosure has an "L" shaped cross-section comprising a first portion formed extending along the rear cover, and a second portion formed extending perpendicular with the rear cover. Dyer teaches a speaker module frame (Figure 3, #101) including a plurality of positioning slices (350) extending from and sidewall when used in combination of said accommodating hole (104) to a center of said accommodating hole (104) for positioning a speaker (Col. 4, Lines 21-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Hawker, with the apparatus of Dyer to more securely hold the speaker within the module, while allowing for easier insertion and removal if a replacement speaker is needed. Hansson teaches a rear sound enclosure (150A and 150B) has an "L" shaped cross-section comprising a first portion (150A) formed extending along a rear cover (rear wall #154 could be a rear cover), and a second portion (150B) formed extending perpendicular with the rear cover (rear wall #154 could be a rear cover). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Hawker as modified, with the apparatus of Hansson to tune the speaker.

3. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawker (5,790,679) and Dyer (6,688,421) as applied to claim 1, and further in view of Croft (2002/0191808). Hawker and Dyer are relied upon for the reasons and disclosures set forth above including a microspeaker (Figure 3, #20) and a sidewall (end portion of #28). Hawker and Dyer fail to teach wherein said microspeaker includes a speaker vibration film having a coil and a magnetic loop. Croft teaches a speaker including a speaker vibration film (Figure 5, #21) having a coil (26) (Page 10, [0129]) and a magnetic loop (Figure 26, #40) (Page 13, [0156]). It would have been obvious to

one of ordinary skill in the art at the time of the invention to combine the apparatus of Hawker as modified, with the apparatus of Croft to increase the efficiency of the speaker and therefore create a reduction in power requirements allowing for high acoustic outputs in a smaller size with out prematurely reaching thermal limits.

5. Claims 9-10 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawker (5,790,679), Dyer (6,688,421) and Hansson (6,493,456), as applied to claims 6 and 11, and further in view of Croft (2002/0191808). Hawker, Dyer and Hansson are relied upon for the reasons and disclosures set forth above including a microspeaker (Figure 3, #20) and a sidewall (end portion of #28). Hawker, Dyer and Hansson fail to teach wherein said microspeaker includes a speaker vibration film having a coil and a magnetic loop. Croft teaches a speaker including a speaker vibration film (Figure 5, #21) having a coil (26) (Page 10, [0129]) and a magnetic loop (Figure 26, #40) (Page 13, [0156]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Hawker as modified, with the apparatus of Croft to increase the efficiency of the speaker and therefore create a reduction in power requirements allowing for high acoustic outputs in a smaller size with out prematurely reaching thermal limits.

Response to Arguments

6. Applicant's arguments with respect to claims 1-2 and 4-15 have been considered but are moot in view of the new ground(s) of rejection. The Examiner considers the obvious combination of Hawker, Dyer, Hansson and Croft to teach all of the limitations as claimed by Applicant. While the Examiner still disagrees with Applicant's

Art Unit: 2837

interpretation of an edge/sidewall with respect to the prior art and pending claims, when combining Hawker and Dyer, the positioning slices of Dyer would extend from the sidewalls of extending portion #28/accommodating hole #34 as clarified above. Further, one of ordinary skill would recognize that a sidewall is an edge, and in this case, the edge of Dyer performs the same function as the sidewall of Applicant's invention with the respect to the retention flaps or positioning slices. Further, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

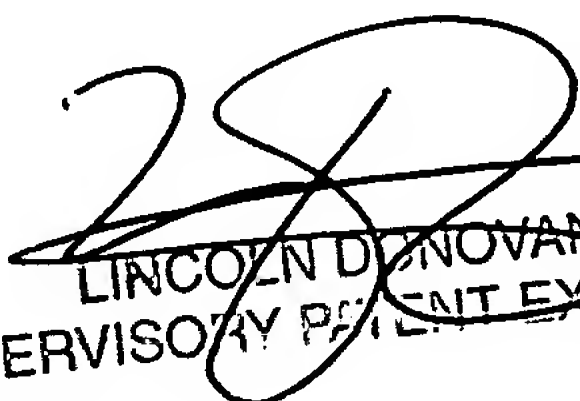
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks
Patent Examiner
Art Unit 2837
Class 181


LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER